

AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of Claims replaces all previous listings or versions thereof:

1-21. (canceled).

22. (currently amended) A method of screening a compound or its salt that regulates the glucose uptake activity of a Na⁺/glucose transporter (SGLT) homolog in the small intestine, which comprises:

determining (i) the glucose uptake activity of a cell ~~capable of producing~~ expressing the homolog in the absence of a test compound and (ii) the glucose uptake activity of a ~~mixture of a cell capable of producing~~ expressing the homolog and in the presence of a test compound, wherein the cell is present in a jejunal slice in an intestinal organ culture system, and

comparing the glucose uptake activities between the cases of (i) and (ii), and
selecting a test compound that promotes or inhibits the glucose uptake activity,

wherein the homolog is a protein which comprises the amino acid sequence represented by of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 50, or an amino acid sequence having at least about 90% homology to the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 50, and has an active glucose transport activity, its partial peptide, or a salt thereof.

23. (canceled)

24-48. (canceled)

49. (currently amended) The method according to claim 22, wherein the glucose uptake activities for the cases of (i) and (ii) is are determined through by measuring the amount of ~~accumulated~~ glucose analogs ~~including glucose or 2-deoxy-glucose~~, which are labeled with ³H radioactivity, accumulated into the cells, with by counting the radioactivity, and comparing them as an indicator of the active transport activity of glucose.